



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/701,457	08/22/96	YAHATA	S 960630

MM41/0722  
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EXAMINER
WIMER, M

ART UNIT	PAPER NUMBER
2821	8

DATE MAILED: 07/22/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/701,457

Applicant(s)

YAHATA et al

Examiner

Wimer

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 4-30-98
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-5, 8-12, 14, 15, 17-29 and 31-36 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-5, 8-12, 14, 15, 17-29 and 31-36 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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### DETAILED ACTION

1. Claims 12,14,15,17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 12, there is no antecedent for "said three antenna...". Also "antenna" should be pluralized.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5,7-11, 19-29 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Hont in view of Wennerberg, Spears or Fujimoto et al.

Regarding Claims 1,3-6,8,19,20 and 36, D'Hont shows, for example in Fig. 7, a transponder antenna with magnetic core composed of layered, rectangular "thin" plates 42A-D of amorphous magnetic material (made of magnetic particles of soft iron or flakes, as claimed, within a synthetic resin) which may be oxidized (as taught in col. 4, lines 30-35) so as to be insulated as recited. No winding of the coil in a parallel direction to the long side of the rectangle appears to be taught. Thus, the secondary references are cited showing such obviousness, where Wennerberg shows coil 12 arranged on rectangular core 10, Spears shows in Fig. 4 the coil wound about the core 21, and Fujimoto et al shows a portion of the coil between terminals 12

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parallel to the long sides of the rectangular core 7. It would have been obvious to employ such a directional winding in D'Hont for the purpose of maximizing directional characteristics of a particular geometrical core antenna. Shape and winding and the direction of the winding are all obvious design considerations. As to Claims 2 and 36, badges, cards or flexible sheets (col. 1, lines 15-17) are deemed to have corners that are rounded, and reduced at any angle for the purpose of convenience. Regarding Claims 7,9-11 and 21-29, D'Hont teaches various dimensions and compositions for the elements and is evidence of obviousness that such dimensions and compositions are design expedients dependent upon a particular antenna design and efficiency in the system. The specific dimensions and compositions claimed are obvious to the skilled artisan and notice of such is hereby taken. Frequency of operation is obvious to a specific design of the skilled artisan and dependent upon frequency allocation of the particular transponder system.

4. Claims 12,14,15,17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens et al in view of Takizawa et al and D'Hont.

Regarding Claims 12,14,15,17 and 18, Stevens et al show a transponder system with a spiral, air-cored loop 46 and ferrite loop antenna 48 disposed on a common substrate 34. Only one magnetic core antenna is shown where its axis is perpendicular to the air core loop antenna 46. Thus, Takizawa et al are cited as evidence of obviousness and as resolving the level of ordinary skill in the antenna art and shows a plurality of magnetic core antennas, where at least two are perpendicular to each other. It would have been obvious to the skilled artisan to pluralize the single magnetic core antenna of Stevens et al according to Takizawa et al in order to provide

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omnidirectional coverage. Further, it would have been obvious to employ the magnetic core antenna of D'Hont in the primary reference devices for the purpose of improving efficiency by reducing eddy currents.

5. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Hont in view of Stevens et al and Takizawa et al.

It would have been obvious to the skilled artisan to employ the transponder arrangement of Stevens et al employing the D'Hont antenna along with an air core, spiral antenna and including a plurality of magnetic core antennas taught by Takizawa et al, effectively pluralizing the D'Hont antenna for system use.

6. Applicant's arguments with respect to claims of record have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

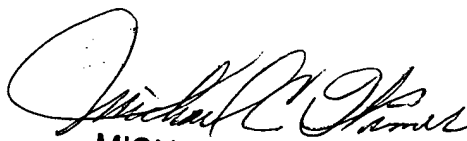
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Wimer whose telephone number is (703) 305-3555. The examiner can normally be reached on weekdays from 9am to 3pm. The fax phone number for this Group is (703) 308-7723. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

MCW

July 15, 1998

  
MICHAEL C. WIMER  
PRIMARY EXAMINER  
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